



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/769,557	01/30/2004	Dennis R. Maiello	77012-325634	5858
58506	7590	05/01/2006	EXAMINER	
FAEGRE & BENSON, LLP ATTN: PATENT DOCKETING 90 SOUTH SEVENTH STREET 2200 WELLS FARGO CENTER MINNEAPOLIS, MN 55402			PRICE, CARL D	
			ART UNIT	PAPER NUMBER
			3749	
DATE MAILED: 05/01/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/769,557

Applicant(s)

MAIELLO ET AL.

Examiner

CARL D. PRICE

Art Unit

3749

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>05/03/2004</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 6, 7, 12 and 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In each of these claims, it is unclear what relationship the “a plurality of apertures” and “a plurality of openings” necessarily has with the “opening” of any one of the previously recited panels. It is recommended, for example, the recitation “the first panel includes a plurality of apertures” be changed to - - the first panel aperture includes a plurality of apertures - -.

Claim 10 recites the limitation "the front portion" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Art Unit: 3749

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1-3, 8-11, 13, 15, 16, 18, 19, 20, 22, 27-29: Rejected under 35 U.S.C. 102(b)

Claims 1-3, 8-11, 13, 15, 16, 18, 19, 20, 22 and 27-29 are rejected under 35 U.S.C. 102(b) as being anticipated by US003533394 (Rose).

US003533394 (Rose) shows and disclose an apparatus and method of extracting heat from a fireplace combustion chamber (30) of an open fireplace during combustion of fuel in the combustion chamber, the apparatus and method comprising:

- emanating radiant heat out of the combustion chamber through the opening (28) of the fireplace;
- drawing substantially all combustion gases and heated air from the combustion chamber through a venting assembly (50, 52);
- removing heat from the drawn combustion gases and heated air with a heat transfer device (36, 45, 46);
- wherein the emanating step includes emanating infrared heat from panels (e.g. – 76, 78) that define the combustion chamber and a burner plate (67) assembly of the fireplace;
- wherein the venting assembly includes a first opening (76, 78) into the combustion chamber that is oriented near a front portion of the combustion

Art Unit: 3749

chamber, and the drawing step includes providing a vacuum force at the first opening;

Regarding claims 1 and 9, in particular, the housing portions (46, 60) of **US003533394 (Rose)** are deemed the structural and functional equivalent to applicant's broadly claimed a second panel having an opening in fluid communication with the first panel opening and being spaced apart from the first panel to define a first venting chamber there between.

Regarding claims 15 and 20, in particular, a middle panel (45) of **US003533394 (Rose)** is positioned in the housing member to divide the housing member into first and second vent chambers, the first vent chamber being in fluid communication with the opening (76, 78) in the top panel, and the second vent chamber being in fluid communication with the exhaust opening (60), the middle panel including an opening (80) providing fluid communication between the first (at 45, 76, 78, etc.) and second vent (50) chambers.

Claims 25-26: Rejected under 35 U.S.C. 102(b)

Claims **25-26** are rejected under 35 U.S.C. 102(b) as being anticipated by **US005169301 (Donnelly et al)**.

US005169301 (Donnelly et al) discloses an air safety system for use with a heating source of the type including:

- an open front surface for the free flow of air into and out of a combustion chamber (not shown) of the heating source, the system being configured to draw substantially all combustion gases produced in the combustion chamber out of the fireplace through an exhaust opening, the safety system comprising:
 - a flow sensor configured to measure fluid flow out of the exhaust opening and provide a flow signal; and

- a combustion control device configured to control combustion in the combustion chamber in response to the flow signal;
- wherein when the flow signal indicates fluid flow below a predetermined rate, the combustion control device shuts off combustion in the combustion chamber (see column 42-47).

Regarding claim 25, the opening (not shown) necessarily present for air to flow into the combustion chamber (column 10, lines 21-23) of US005169301 (**Donnelly et al**) is deemed the structural and functional equivalent to applicant's broadly recited "an open front surface".

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 6, 7, 12, 17 and 21: Rejected under 35 U.S.C. 103(a)

Claims 6, 7, 12, 17 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over US003533394 (**Rose**) in view of US000485772 (**Peel**).

US003533394 (Rose) shows and discloses the invention substantially as set forth in the claims with possible exception to the first panel include having a plurality of openings oriented in the front portion of the combustion chamber, and another panel includes a plurality of openings generally in alignment with the plurality of openings in the first panel.

US000485772 (Peel) teaches, from applicant's same open front fireplace field of endeavor, providing a first panel (C) including a plurality of openings oriented in the front portion of the combustion chamber, and another panel includes an opening (L) generally in alignment with the plurality of openings (F) in the first panel, for permitting varying combustion exhaust gas and air mixture flows suitable for startup and normal operation of the combustor.

In regard to claims **6, 7, 12, 17** and **21**, for the purpose of permitting for permitting varying combustion exhaust gas and air mixture flows suitable for startup and normal operation of the combustor, it would have been obvious to a person having ordinary skill in the art to modify the panels of **US003533394 (Rose)** to include a plurality of openings, in view of the teaching of **US000485772 (Peel)**. With regard to the third panel having a plurality of openings, since the number of openings in the second panel would depend on design concerns such as the width of the exhaust opening, to for the third opening as a plurality of openings can be viewed as nothing more than merely a matter of choice n design absent the showing of any new or unexpected results over the prior art of record.

Claims 4, 5, 14, 23, 24: Rejected under 35 U.S.C. 103(a)

Claims **4, 5, 14, 23** and **24** are rejected under 35 U.S.C. 103(a) as being unpatentable over **US003533394 (Rose)** in view of **US005169301 (Donnelly et al)**.

US003533394 (Rose) shows and discloses the invention substantially as set forth in the claims with possible exception to a flow sensor configured to determine fluid flow out of the

Art Unit: 3749

exhaust opening and provide a flow signal wherein the combustion control device configured to control combustion within the combustion chamber in response to the flow signal.

US005169301 (Donnelly et al) discloses an air safety system for use with a heating source of the type including:

- an open front surface for the free flow of air into and out of a combustion chamber (not shown) of the heating source, the system being configured to draw substantially all combustion gases produced in the combustion chamber out of the fireplace through an exhaust opening, the safety system comprising:
 - a flow sensor configured to measure fluid flow out of the exhaust opening and provide a flow signal; and
 - a combustion control device configured to control combustion in the combustion chamber in response to the flow signal;
 - wherein when the flow signal indicates fluid flow below a predetermined rate, the combustion control device shuts off combustion in the combustion chamber (see column 42-47).

In regard to claims **4, 5, 14, 23** and **24**, for the purpose of forming an air safety system, it would have been obvious to a person having ordinary skill in the art to modify **US003533394 (Rose)** to include to a flow sensor configured to determine fluid flow out of the exhaust opening and provide a flow signal wherein the combustion control device configured to control combustion within the combustion chamber in response to the flow signal, in view of the teaching of **US005169301 (Donnelly et al)**.

Conclusion

See the attached USPTO form 892 for prior art made of record and not relied upon which is considered pertinent to applicant's disclosure.

Art Unit: 3749

USPTO CUSTOMER CONTACT INFORMATION

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CARL D. PRICE whose telephone number is (571) 272-4880. The examiner can normally be reached on Monday through Friday between 6:30am-3:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ehud Gartenberg can be reached on (571) 272-4828. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



CARL D. PRICE
Primary Examiner
Art Unit 3749

cp